

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

VOL. XXVI.

ANNUAL SUMMARY, 1898.

No. 13

INTRODUCTION.

The present Summary, for the year 1898, is based essentially upon data received from about 140 regular Weather Bureau stations and 28 regular Canadian stations; in preparing the charts of mean annual surface temperature and total precipitation, however, many reports from voluntary stations were used. A revised chart of total annual precipitation

will be published in the Annual Report of the Chief of the Weather Bureau when the data from all voluntary stations have been received. The tables for thunderstorms and auroras are, as usual, based on reports from both voluntary and regular observers. The statistical tables and charts have been prepared under the supervision of A. J. Henry, Chief of the Division of Records and Meteorological Data.

FORECAST DIVISION.

E. B. GARRIOTT, Chief of Forecast Division.

SUMMARY OF HIGHS AND LOWS FROM 1895 TO 1898, INCLUSIVE.

During a part of 1895 and all the three succeeding years the data regarding the highs and lows of each month have been compiled by one person and under precisely constant or similar conditions. It is not believed that records for four years can give any but approximate results, but it will be of some value to compile averages, and these will serve for a fuller study as the years go by. The average data for 1895 are added, but they should be given less weight, and should be used more to corroborate the averages for other years and not independently or as proving anything in and of themselves. In summarizing the data the following points have been sought for: (1) The average latitude and longitude of the beginning and ending of each months' highs and lows. (2) The velocity of these in miles per hour. (3) The average latitude at which these highs and lows crossed the ninetieth meridian.

Summary of highs and lows.

Month.	Highs.				Lows.				Crosses 90° W.	
	Mean first.		Mean last.		Mean first.		Mean last.		High.	Low.
	Lat. N.	Long. W.	Lat. N.	Long. W.	Lat. N.	Long. W.	Lat. N.	Long. W.	Velocity.	Velocity.
1895.	o	o	o	o	o	o	o	o	o	o
January	48	105	43	74	39	44	103	45	67	33
February....	49	107	41	90	29	40	103	45	64	25
March....	50	112	35	83	27	45	106	43	68	31
April	42	115	39	83	22	50	112	42	79	27
May.....	49	103	34	85	22	50	106	47	81	22
June.....	45	119	41	81	25	44	110	45	81	19
July.....	46	108	36	87	18	48	109	44	74	24
August....	41	106	39	84	22	45	105	43	73	22
September..	45	116	42	77	23	49	112	47	74	24
October....	47	111	40	77	25	47	107	47	65	28
November..	46	111	40	67	21	39	101	48	72	34
December...	53	105	37	80	20	43	109	48	72	31
Cold.....	49	109	39	78	27	43	105	46	68	30
Warm....	45	111	39	83	22	48	109	45	77	23
Mean.....	47	110	39	80	24	45	107	45	73	26

Summary of highs and lows—Continued.

Month.	Highs.				Lows.				Crosses 90° W.	
	Mean first.		Mean last.		Mean first.		Mean last.		High.	Low.
	Lat. N.	Long. W.	Lat. N.	Long. W.	Lat. N.	Long. W.	Lat. N.	Long. W.	Velocity.	Velocity.
1896.	o	o	o	o	o	o	o	o	o	o
January....	48	111	43	79	22	44	114	43	77	25.7
February....	46	111	45	89	26.6	48	115	39	75	26.5
March....	51	113	40	73	23.5	46	111	46	67	27.9
April....	49	105	40	78	21.2	44	112	47	81	23.6
May....	46	99	36	75	23.5	41	110	45	81	21.1
June....	45	115	40	75	23.6	50	112	46	75	24.1
July....	51	113	43	83	22.2	49	110	47	76	23.6
August....	49	119	43	67	22.5	49	107	48	69	27.6
September..	50	119	43	68	24.7	46	108	46	72	25.1
October....	45	114	45	83	21.9	46	106	48	78	24.4
November..	48	104	43	63	27.6	43	118	48	65	33.8
December...	48	104	38	90	24.8	49	116	47	67	31.8
Cold....	48	110	42	76	24.9	46	113	45	71	28.4
Warm....	48	112	41	74	23.0	47	109	47	76	24.2
Mean....	48	111	42	75	24.0	46	111	46	74	26.3
1897.	o	o	o	o	o	o	o	o	o	o
January....	49	108	44	77	27.3	43	111	47	67	29.1
February....	50	108	43	70	26.1	42	109	46	63	31.8
March....	51	107	39	70	25.7	42	108	47	75	27.7
April....	46	114	39	78	24.0	47	112	46	69	23.8
May....	44	113	39	81	19.4	47	106	46	77	20.6
June....	47	115	36	81	23.7	46	108	44	83	24.4
July....	48	123	31	87	20.6	52	113	46	79	19.5
August....	49	115	38	81	25.2	49	112	46	70	22.0
September..	46	112	36	83	21.7	44	109	46	72	25.5
October....	44	110	39	75	24.7	46	108	44	75	26.7
November..	49	118	39	71	25.8	47	111	48	56	27.7
December...	48	114	36	78	22.9	42	113	48	64	32.4
Cold....	49	111	40	73	25.4	44	110	47	67	29.2
Warm....	47	115	35	82	22.4	48	110	46	75	22.5
Mean....	48	113	38	78	23.9	46	110	46	71	25.8
1898.	o	o	o	o	o	o	o	o	o	o
January....	46	109	45	62	30.8	41	113	47	56	36.6
February....	48	109	42	74	28.3	48	117	47	66	27.8
March....	50	116	45	71	25.3	40	105	48	66	29.1
April....	43	123	35	74	25.2	45	115	45	66	25.3
May....	49	114	37	84	22.0	40	112	38	76	19.4
June....	46	109	37	73	23.8	46	110	45	64	24.3
July....	44	118	38	74	22.1	49	114	48	67	27.3
August....	45	108	42	69	21.4	46	109	45	71	21.2
September..	46	118	40	74	24.3	48	105	45	71	22.6
October....	46	119	43	74	24.2	42	104	48	67	24.5
November..	44	122	40	72	25.5	46	111	47	69	27.8
December...	46	105	38	74	24.5	46	114	46	63	23.4
Cold....	47	114	42	70	26.4	44	111	47	64	28.9
Warm....	45	115	38	75	23.1	46	111	45	69	23.3
Mean....	46	114	40	72	24.7	45	111	46	67	26.1